AMENDMENTS TO THE SPECIFICATION

Please amend the following several paragraphs as follows:

[0003] In the prior art, it is known that there is a fluoroscopic noise in fluoroscopy and that the ~~mean~~ standard deviation of this fluoroscopic noise is proportional to the square root of the number of photons reaching the detector.

[0010] computing, for at least one sub-group SG, of the ~~mean~~ standard deviation σ of the values Pi(x,y) - Pi-1(x,y);

[0019] In an embodiment of the invention, the problem of fluoroscopic noise is resolved by filtering the image obtained so as to improve its quality. Thus, the fluoroscopic noise is eliminated after it has been determined/modeled. This noise is totally determined, hence modeled, by its mean standard deviation. This mean standard deviation is itself a function of the square root of the number of photons received by a detector. The number of photons itself is related to a gray level in a digital image. Digital images are thus used to obtain the modeling. This modeling is done in several steps. In a first step, two digital images of the same zone are acquired. In an embodiment of the invention, an image, unless otherwise indicated, is a digital image. It will be noted here that the teaching of the invention is valid whatever the nature of the sensor, whether digital or analog, used to obtain the images. Each pixel or dot of an image is paired with a pixel of the other image by means of its coordinates in the image. Each pixel also has a gray level value, or gray level. The pixels are grouped together by gray level intervals and thus sub-groups of pixels are obtained. For each sub-group of pixels, a discrimination is made as follows: the mean μ and the ~~mean~~ standard deviation σ of Pi(x,y) - Pi-1(x,y) are computed, where Pi(x, y) is the gray level of the pixel of the image i with coordinates (x, y). Then, in a sub-group, only the values P(x,y) are kept such that Pi(x,y) - Pi-1(x,y) < $\mu + k.\ \sigma$. This discrimination is repeated iteratively on the result of the preceding discrimination. This discrimination greatly reduces blur. To obtain even more reliable sub-groups, the method eliminates those that, at the end of the discrimination, are not centered, namely those whose mean is greater than 1.5 times the ~~mean~~ standard deviation. Then there is knowledge of a collection of pairs v, σ) where v

is a gray level. These pairs enable an operation of regression leading to parameters α, β and γ such that $\sigma(v) = \alpha.\sqrt{v} + \beta.v + \gamma$, where $\sigma(v)$ is the modeling of the fluoroscopic noise. This regression is made robust by iterating it after weighting the σ values of the pairs (v, σ) drawing the curve upwards so as to obtain a curve that passes above the majority of the dots (v, σ).

[0022] In fluoroscopy, the ~~mean~~ standard deviation of the fluoroscopic noise is proportional to the square root of the number of photons reaching the detector. However, the gray level is proportional to the quantity of photons received. This enables working on the gray levels.

[0029] Step 102 proceeds to step 103 for computing a mean standard deviation for a sample. Step 103 considers the dots of a sub-group SG of the image i in correspondence with dots of the image i-1. Dots are in correspondence when they have the same coordinates. A sub-group in the image i determines a sub-group comprising the same dots in the image i-1. In step 103 a computation is therefore made of the ~~mean~~ standard deviation σ of the values (Pi(x, y) - Pi-1(x, y)) with (x, y) belonging to SG.

[0038] At the end of step 107, a value v and a mean standard deviation σ can be associated with each non-empty group that was not removed at step 106. The mean value v is the mean value of the sub-interval that was used to initially determine the sub-group. Given that a sub-interval is determined by a lower limit Bi and an upper limit Bs, v is equal to (Bi + Bs)/2. the ~~mean~~ standard deviation σ is the last mean standard deviation computed for the sub-group. At step 107 there is collection of pairs (v, σ).